

IDAHO

THE STATE OF IRRIGATION

man, woman and child in the entire state one pound of flour a day, there was sufficient wheat produced here this year to provide the whole population with bread for fully six years. This is not taking into account the 7,000,000 bushels of oats and the 2,000,000 bushels of barley and the rye and corn raised.

CLOTHED IN BROADCLOTH.

Idaho can not only feed, house and provide a home and furnish the medium of exchange for every industrious son and daughter of Adam coming within its borders, but can provide the material sufficient to clothe each and every one in the finest of broadcloth. The wool product of the state this year amounts to 14,000,000 pounds, shorn from the backs of two and a quarter million sheep.

Briefly stated, the foregoing are the principal features which appeal to the man from the outside, especially to the populace of the congested cities of the east, and account for the great influx of new blood, which is flowing into the state in a continual stream. And over and through the manifold resources and opportunities of the state, there floats and pervades the most life-giving and inspiring climate anywhere to be found.

INDUSTRIAL DEVELOPMENT.

The oldest industry of the state—and it dates back only to the 60's—is mining, and the industry practically contemporary with it was stock raising; then followed agriculture, horticulture and manufacturing—the last two of a date considerably subsequent to the beginning of the other industries named, but they are founded firmly and well and are advancing with sure and rapid step toward a condition of eternal progress and permanency.

STOCK RAISING.

As settlers come into the state and occupy the vacant lands, they drive back the stockman and lessen the advantage of his industry just in proportion to the lands taken; hence this industry is waning.

Three years ago, Idaho boasted of her 3,000,000 sheep, which produced an annual clip of 20,000,000 pounds of wool. Today she has within her borders about 2,500,000 of the woolly backed creatures. In round numbers, we have about 150,000 head of cattle, 30,000 head of horses, 1,000 mules, 2,500 goats, and 50,000 swine.

The encroachment of the forest reserves upon the once free range has been a very important factor, also, in blocking this important industry. Practically the entire mountainous and timbered areas of the state now unclaimed by vested interests are embraced in national forest reserves, which cover approximately 20,000,000 acres.

MINING.

Out of the 23 counties of the state, 19 have a mineral producing record. The banner mining county is Shoshone, which produced this year nearly \$14,000,000.

But with this splendid record in mineral production, the entire county produces scarcely a bushel of wheat or a peck of apples.

The 1910 mineral product of the state will fully equal the splendid record of 1909, which stands as follows:

Lead, 217,334,879 lbs.	\$ 9,356,571.20
Silver, 7,039,451 ozs.	\$ 2,631,747.40
Gold, 70,838 fine ozs.	\$ 1,462,481.05
Copper, 7,759,587 lbs.	\$ 1,034,651.50
Zinc, 1,306,200 lbs.	\$ 104,841.00
Coal, 3,500 tons	\$ 20,000.00
Total	\$15,606,562.15

Idaho has a total of 1,102 manufacturing establishments, which turn out an annual product valued at \$24,100,000. The capital invested in these concerns is about equal in value to the yearly output. The workmen employed number about 9,000, with an annual payroll of over \$5,100,000. These figures do not include the mine workers and trades unions, which include a membership of about 3,000. Sugar production alone amounts to nearly \$2,500,000 a year. The manufacturing industries, though practically in their infancy in this state, are in a very healthy condition and show evidence of continual progress and increase.

AGRICULTURE.

The greatest progress in agriculture in this state during the past few years and one which is attracting considerable attention and much favorable comment, is in what is commonly known as dry farming. Fully 300,000 acres are now being farmed by this method, and with phenomenal success.

The land brought into use through the application of this scientific process was farming was a few years ago considered not worth the price of a fence to enclose it. As a consequence thousands of acres of this barren ground lay within close proximity to towns and cities without the apparent hope of ever inviting a hand to improve its surface with fertility.

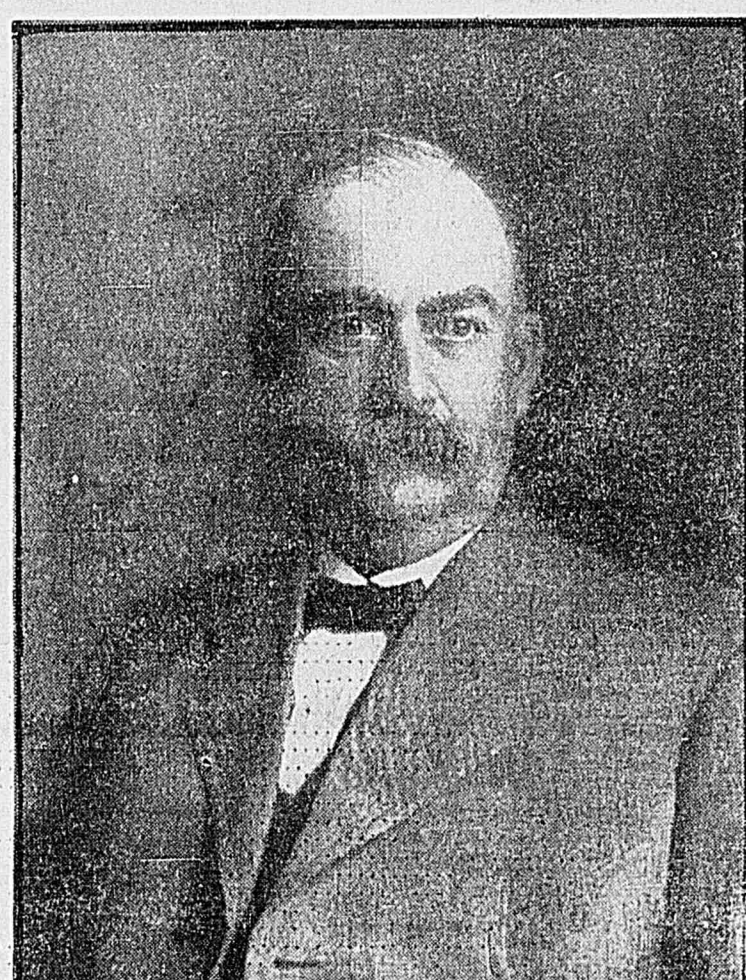
But the scene has vastly changed; now even the hill tops nod their wheat crowned summits in pride and grandeur as the gentle zephyrs waft the perfume of the ripening grain through the air.

Some of these dry farms contain as high as 8,000 acres. The yield in wheat per acre ranges from 15 to 50 bushels, and the latter figure is not at all the exception. When pursued scientifically, and the soil is properly followed, barley, rye and even alfalfa are successfully grown. Onida and Fremont counties are especially distinguished themselves in this method of agriculture.

The 300,000 acres referred to as being cultivated without the artificial application of water and without precipitation, are situated wholly within the arid portion of the state, or the southern



OUTGOING AND INCOMING GOVERNORS OF THE STATE OF IDAHO.
GOVERNOR JAMES H. BRADY, REPUBLICAN.



GOVERNOR-ELECT JAMES H. HAWLEY, DEMOCRAT.

part. In the northern, or humid region of the state, possibly 1,500,000 acres are cultivated without irrigation. These two figures added together give one a quick total of 1,800,000 acres of land producing crops in this state without the artificial application of water. One might add thereto, 1,000,000, the approximate irrigated acreage, and secure a grand total of 2,800,000 acres, which represents about the total cultivated acreage of the state at the present time.

In all, Idaho has approximately 12,000,000 acres of agricultural land, over half of which lies within the arid belt, where irrigation is required for the production of crops, except where the "dry" method is employed.

The total wheat product of the state this year will amount to about 11,623,000 bushels, according to the estimate of the state statistician; the oat product, 7,094,000; barley, 2,041,000; rye, 45,000; and corn, 105,000.

HORTICULTURE.

Many of the farmers of the state are turning to fruit raising, and for a good reason. The product is easier handled and many times more valuable. Five acres in apples, situated within the fruit districts of the state, will produce an independent living for an ordinary family.

To make conceiving the adaptability of Idaho's climate and soil to fruit culture, one need but cite the records of the various recent exhibitions—notably the Portland, Chicago, Seattle and Council Bluffs—and note the numerous first prize awards and the gold medals received on the fruit exhibits from this state. Idaho apples and prunes are in demand and sold upon the streets of New York, Chicago and St. Louis today.

The various fruit growers of the state shipped this year to eastern markets 2,500 carloads of fruit, of which 1,800 were apples. The total apple product of the state for 1910 is valued at \$2,000,000, which is just two-thirds of the value of the entire fruit crop. The total acreage at present planted to fruit is conservatively estimated at 70,000. The



Heber Q. Hale

acreage planted to orchards has practically doubled in the last two years.

DEPARTMENTS OF STATE.

All of the departments of state show a very healthy and prosperous condition. "The state is operating upon a strictly cash basis," declared the governor recently, "and is absolutely out of debt." The net earnings of the various departments for the year 1910 will aggregate approximately \$200,000, clear and above all expenses.

FISH AND GAME DEPARTMENT.

The state game department has planted during the last two years 5,833,955 fish in the various streams throughout the state, and has distributed 1,102 Chinese and English Ring Neck pheas-

ants. It also completed the construction of three splendid fish hatcheries and turned into the state treasury from fines and licenses a balance of \$10,000.

Idaho has already gained a reputation as the sportsman's paradise and is destined to become the Mecca of the man with the rod and gun.

LAND DEPARTMENT.

The land board is composed of the governor, secretary of state, attorney general, and superintendent of public instruction—provided for in the state constitution. Under the direction of this board the various land grants are managed.

The federal government granted to Idaho for the benefit of the common schools, sections 16 and 36 in each and every township in the state, and made land grants to various other public institutions, the total acreages in each being as follows:

General school	3,000,000 acres
Normal school	50,000 acres
Public buildings	22,000 acres
Normal school	100,000 acres
Charitable institutions	150,000 acres
Scientific schools	100,000 acres
Agricultural college	90,000 acres
Penitentiary	50,000 acres
University (state)	50,000 acres
University (ter.)	45,000 acres

Total

From these various grants the board has sold during the past two years 72,465.13 acres at public auction sale for \$1,307,741.41. During the same period the state has leased of these lands 676,063.15 acres, deriving therefrom \$91,266.67. The timber from 2,137.58 acres has been sold for \$38,352.75. And before this year has ended fully 30,000 acres more will be sold, besides a great quantity of timber, and doubtless thousands of acres of additional lands will be leased.

The average daily receipts of the department amount to upwards of \$4,000. The total cash receipts for the biennial period, 1909-10, up to Nov. 1, amount to \$2,527,696.67.

The funds received as principal from

these sales are deposited in the perpetual endowment funds of the particular institutions to which they belong. The interest and rental is used for the general maintenance of the institutions.

Of the principal in these funds, the state has now invested in school bonds, drawing 5 per cent interest, the enormous amount of \$2,010,953; in mortgages on farm lands, drawing 6 per cent, and in state warrants, drawing 6 per cent interest, \$817,622.74; and in state warrants, drawing 6 per cent interest, \$479,310.21.

It may readily be seen from the foregoing that the common schools, colleges and other public institutions of the state are well provided for. Not an acre of these immense land grants can be sold for less than \$10 per acre, or the appraised valuation, whatever that may be in excess of this figure. With the interest on deferred payments on sale certificates, the interest received from investments and the rental of the lands, these various institutions will soon be, as certain of them now are, self-supporting, without taxing the people a cent.

STATE'S GROWTH.

In the year 1860, Idaho was not found on the map of the United States. When the federal census was taken in 1870, Idaho was given a total population of but 15,000. In 1890, Idaho was admitted into the Union and her population at that time was 84,000. The census of 1900 gave the state 162,000 inhabitants. When the census of this year is announced it will show the state's population to be 375,000—so say those who are in the best position to know.

The growth of the state has been exceptionally rapid, as can readily be seen by a glance at the figures here given; and considering the facts set forth in this article, it becomes also apparent that this growth, though rapid, is permanent and sound.

Our climate is unsurpassed, our resources unbounded, our institutions untrammeled and our citizenship unexcelled. Idaho, the land of opportunity—the country of homes!

IDAHO'S WONDERFUL IRRIGATION RECORD

By Heber Q. Hale, Chief Clerk State Land Department.

IDAHO leads the world as an irrigation state. No state in the American Union can boast of such an irrigated area as Idaho contains; no other state has expended the millions in the reclamation of arid lands, and no other state has so many acres available for public entry. Idaho's canals are the longest, her engineering feats the most wonderful and her water supply the most inexhaustible. No state has been more active in securing the benefits of the provisions of the Carey act than Idaho, and, with possibly one exception, no other state has benefited so much from the United States reclamation act. And furthermore, no other state has done so much and made such progress in irrigation

through individual efforts and private enterprises.

These are admittedly very bold statements; but a sufficient study of the irrigation question has been made by the writer to convince him of their reasonable accuracy, as he shall attempt to show in the succeeding paragraphs.

HISTORY OF IRRIGATION.

Idaho's irrigation history does not extend back over many decades. From a beginning so insignificant as to consist of a simple furrow extending from a rivulet to a garden spot a few rods away, practical irrigation in this state has developed to embrace 5,000,833 acres, with canals aggregating 10,491 miles in length, constructed at a cost of \$90,000,000.

Individual effort marked the first stages of the development of this science; then, as the most accessible

places were taken and operations on a larger scale became necessary, cooperative effort was exerted and enterprises designed to serve the needs of two or more individuals were constructed. Later on the scheme broadened and canals were constructed by united effort for the service of a whole community, on which plan hundreds of canals throughout the southern portion of the state are now being operated.

The next move forward was, by natural process, toward the construction of irrigation works by capitalists; for the very nature of the works themselves demanded the investment of large sums of money which obviously made such an undertaking prohibitive to the man of small means or the average community; thus have been born the gigantic irrigation enterprises in this state which have been such an important factor in the building of this "Inland

Empire" and the development of our wonderful resources. Hundreds of thousands of acres of barren and heretofore worthless land is therefore being redeemed from its aridity and made to blossom and bloom and bear fruit.

The latest irrigation schemes in this state are far beyond the wildest dreams of a few years ago. They represent some of the greatest engineering feats of the age. The tunneling work under mountains and rivers, the damming of the greatest waterways of the state, the building of immense storage reservoirs, the siphoning over hill and dale and the construction of gigantic pumps to overcome gravely defiances are a few of the engineering undertakings and accomplishments of record.

WORLD'S GREATEST RESERVOIR.

The most stupendous proposition thus far undertaken in Idaho, if not in the

ATTRACTING an annual immigration of 25,000 new citizens and home-builders within her borders, Idaho has set a pace during the year 1910 which has caused the other sparsely settled states of the west to prick up their ears in wonderment. The cultures gather where the earthen loam is—where the homeseekers go where there are advantages found for acquiring land and other means of sustenance at a reasonable figure and with moderate effort, and herein lies the reason for Idaho's phenomenal growth.

Capitalists have not come to this state and spent over \$75,000,000 in good hard cash in the construction of irrigation works for nothing. Nor are they doing this with the hope of receiving compensation from the established residents of this wonderful little commonwealth—not at all; they look quite wholly toward the east, and not in vain—for men to buy their lands and establish homes. Thus, new and uninhabited—not to say uninhabitable—districts have been settled, new counties created and scores and scores of new towns and cities built.

WHITE PINE FORESTS.

Idaho boasts of the greatest white pine forests in the world, and in the comparatively short life of the lumber industry in this state—since the advent of the railroads into the timbered re-

gions—such a demand has been created for this native product that it has called for the installation of saw and planing mills already valued at nearly \$10,000,000 with an annual output amounting to equally as much.

WORLD'S LEAD PRODUCER.

The greatest lead producing mines in the world are situated in this fair young state. The yearly output is fully one-third of the total product of the United States; and associated with the lead are silver values, which puts Idaho in a position where its lead can be mined on an extensive scale at prices so low as to make operations of mines in many great lead districts prohibitive.

Shoshone, the banner mining county of the state, has produced to date over \$190,000,000 in ores. The 1910 product of this county will amount to approximately \$14,000,000.

HOME OF RED APPLE.

By a certain class of people, Idaho is called "The Home of the Red Apple"; and the phrase is well applied, as easterners can bear testimony, to whom Idaho orchardists shipped 1,870 car loads this year. The total apple crop of the state for 1910 amounts to fully \$2,000,000.

BREAD PRODUCER.

And as to the "Staff of Life," Idaho is abundantly supplied. Allowing every